

ABSTRACT

SWITCHING NODES AND INTERFACE MODULES FOR DATA NETWORKS

An interface module is provided for connecting a data communications link to a switching node, comprising a plurality of other such interface modules, of a data communications network. The interface module has at least one external port for connection to a data communications link, and a plurality of internal ports for connection to respective internal ports of said other interface modules of the switching node. A link interface is connected to the external port for processing inbound data for forwarding across the switching node and outbound data for transmission over the link. A switch circuit is connected between the link interface and the internal ports of the module for transmission of data between the internal ports of the module and between the internal ports and the link interface. The module further includes a controller for controlling routing of data via the internal ports of the module in accordance with an intra-node routing protocol governing routing of data across the intra-node network of interconnected interface modules of the switching node. Switching nodes comprising a plurality of such interface modules, and optionally one or more switching modules, are also provided.